

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for providing surveillance within an Internet Protocol (IP)-based communication network, the communication network providing communication services for a subscriber, wherein the subscriber accesses the communication network via an access network, the method comprising the steps of:
  - receiving a request for surveillance services from a requesting agency;
  - receiving trigger information associated with surveillance services in response to a trigger event;
  - in response to receiving the trigger information, generates a Gateway Control Protocol instruction that instructs a generation of a duplicate bearer stream;
  - in response to the Gateway Control Protocol instruction, generating a duplicate of call information one or more of bearer packets and control packets associated with a surveillance target in response to the trigger information; and
  - negotiating a secure IP link to the requesting agency; and
  - transmitting the duplicate of call information one or more bearer packets and control packets to the requesting agency via the secure IP link.
2. (Original) The method of claim 1, wherein the trigger information associated with surveillance services comprises one of a release to pivot capability (RTP) stream endpoint, a vocoder type, a requesting agency identifier, and a requesting agency address.
3. (Original) The method of claim 1, wherein the trigger event comprises one of a registration, a call connection, a call termination, and a service invocation.
4. (Original) The method of claim 3, wherein the service invocation comprises one of a call waiting, a conference call, a call forwarding, and a message retrieval.
5. (Original) The method of claim 1, wherein the access network comprises a radio access network.

6. (Currently Amended) An Internet Protocol (IP)-based communication network providing communication services for a subscriber, the communication network comprising:

an access server, the access server providing an interface between the communication network and an access network;

a services client that provides trigger information associated with surveillance services in response to a trigger event, which trigger information includes IP address information associated with an associated network;

a surveillance server that interfaces with the services client via an application programming interface, wherein the surveillance server receives the trigger information, forwards the address information to a relay client, and generates a Gateway Control Protocol instruction that causes a relay client to provide a duplicate bearer stream;

a relay client element interfaced with the access server, the relay client providing that interfaces with the surveillance server via an application programming interface communications delivery services within the communication network, wherein the relay client receives the address information from the surveillance server and forwards the address information to a gateway element;

a surveillance server, the surveillance server being interfaced with the relay client; and

a gateway element, the gateway element linking that links the communication network to an the associated network, wherein the gateway element receives the forwarded address information from the relay client and negotiates a secure IP link with the associated network based on the address information; and

wherein responsive to the surveillance server, the relay client further generates a duplicate of call information one or more of bearer packets and control packets and conveys the one or more duplicate bearer packets and control packets to the gateway element for communication to the associated network via the secure IP link.

7. (Currently Amended) The communication network of claim 6, wherein the call information duplicate bearer stream comprises one of bearer data and call signaling data.

8. (Original) The communication network of claim 6, wherein the relay client comprises a conference feature server.

9. (Original) The communication network of claim 6, wherein the surveillance server is part of a core network.

10. (Cancelled)

11. (Original) The communication network of claim 9, wherein the core network further comprises a feature server, and wherein the surveillance server is interfaced with the feature server.

12. (Original) The communication network of claim 11, wherein the feature server comprises one of a billing server, a location server, a profile server and a short message server.

13. (Original) The communication network of claim 6 further comprising a subscriber information database, and wherein the subscriber information database includes a data structure including subscriber surveillance data.

14. (Currently Amended) The communication network of claim 6, wherein the surveillance server is interfaced to an authentication authority element and the authentication authority element authenticates the request for surveillance services from the a requesting agency associated with the associated network.

15. (Original) The communication network of claim 6, wherein the access network comprises a radio access network.

16. (Currently Amended) In an Internet Protocol (IP)-based communication network providing communication services for a subscriber, wherein the subscriber accesses the

communication network via an access network, and wherein a server operates in accordance with a computer program embodied on a computer-readable medium for providing surveillance within the communication network, the computer program comprising:

a first routine that directs the server to receive a request for surveillance services from a requesting agency;

a second routine that directs the server to receive trigger information associated with the subscriber;

a third routine that, in response to the trigger information, directs the server to generate a Gateway Control Protocol instruction that instructs another network element to generate a duplicate of call information one or more of bearer packets and control packets associated with the subscriber in response to the trigger information; and

a fourth routine that directs the server to transmit the duplicate of call information signaling streams to the requesting agency via a secure IP link.

17. (Original) The computer program of claim 16, wherein the trigger information comprises one of a release to pivot capability (RTP) stream endpoint, a vocoder type, a requesting agency identifier, and a requesting agency address.

18. (Original) The computer program of claim 16, wherein the call information comprises one of bearer data and call signaling data.

19. (Original) The computer program of claim 16, wherein the access network comprises a radio access network.

20. (Currently Amended) A method for providing surveillance within an Internet Protocol (IP)-based communication network, wherein the communication network providing communication services for a subscriber, and wherein the subscriber accesses the communication network via an access network, the method comprising the steps of:

receiving a request for surveillance services from a requesting agency, which request include IP address information associated with the requesting agency;

receiving an authentication message for the request dialoguing with an authentication authority to obtain information associated with the requested surveillance; receiving trigger information associated with surveillance services in response to a trigger event; and

transmitting a surveillance message to an IP core network in response to the trigger information, the surveillance message includes information for generating including an instruction to convey a duplicate of call information one or more of bearer packets and control packets associated with the subscriber; and

wherein the IP core network generates and transmits the duplicate of call information one or more of bearer packets and control packets to the requesting agency based on the IP address information.

21. (Original) The method of claim 20, wherein the trigger information associated with surveillance services comprises one of a release to pivot capability (RTP) stream endpoint, a vocoder type, a requesting agency identifier, and a requesting agency address.

22. (Original) The method of claim 20, wherein the call information comprises one of bearer data and call signaling data.

23. The method of claim 20, wherein the access network comprises a radio access network.

24. (Currently Amended) An Internet Protocol (IP)-based communication network for providing communication services to a subscriber, wherein the subscriber accesses the communication network via an access network, the communication network comprises:

a core IP network, the core network including an access server for interfacing the core network with the access network and a gateway element linking the core network to an associated network, wherein the core IP network receives a request for surveillance services from a requesting agency via the gateway element and forwards the request to a surveillance server; and

a surveillance server, the surveillance server including that comprises an interface with the core IP network and that receives the request for surveillance services, which request include IP address information associated with the requesting agency, dialogues with an authentication authority to obtain information associated with the requested surveillance, receives trigger information associated with surveillance services in response to a trigger event, and transmits a surveillance message to the IP core network in response to the trigger information, the surveillance message including an instruction to convey a duplicate of one or more of bearer packets and control packets associated with the subscriber;

wherein, in response to the surveillance message upon receipt of a request for surveillance services by the core network via the gateway element, the core IP network is responsive to the surveillance server for providing surveillance services to a services network generates and transmits the duplicate of one or more of bearer packets and control packets to the requesting agency via the gateway element and based on the IP address information.

25. (Original) The communication network of claim 24, wherein the surveillance server is coupled to an authentication authority element and the authentication authority element authenticates the request for surveillance services from the requesting agency.

26. (Original) The communication network of claim 24, wherein the access network comprises a radio access network.

27. (Currently Amended) In an Internet Protocol (IP)-based communication network providing communication services for a subscriber, wherein the communication network provides communication services for a subscriber, and wherein a server operates in accordance with a computer program embodied on a computer-readable medium for providing surveillance within the communication network, the computer program comprising the steps of:

a first routine that directs the server to receive a request for surveillance services from a requesting agency that includes IP address information associated with the requesting agency;

a second routine that directs the server to receive dialogue with an authentication message for the request authority to obtain information associated with the requested surveillance;

a third routine that directs the server to receive trigger information associated with surveillance services in response to a trigger event; and

a fourth routine that directs the server to transmit a surveillance message to an IP core network in response to the trigger information, the surveillance message includes information for generating including an instruction to convey a duplicate of call information one or more of bearer packets and control packets associated with the subscriber; and

wherein the IP core network generates and transmits the duplicate of call information one or more of bearer packets and control packets to the requesting agency based on the IP address information.

28. (Original) The computer program of claim 27, wherein the trigger event comprises one of a registration, a call connection, a call termination, and a service invocation.

29. (Original) The computer program of claim 28, wherein the service invocation comprises one of a call waiting, a conference call, a call forwarding, and a message retrieval.